Flextile Ltd.™

INSTALLATION SOLUTIONS SINCE 1946

09 30 00-DIV 9
ANSI A118.10
ANSI A118.12

WP-980
WATERPROOF & CRACK ISOLATION MEMBRANE

Flexfresh™

PRODUCT DESCRIPTION

WP-980 is a thin, flexible, load bearing waterproofing system which consists of an elastomeric latex compound along with a reinforcing fabric that combine to form a seamless waterproof barrier under ceramic tile and stone installations. WP-980 also acts as a crack isolation membrane for these same types of applications.

BASIC USES

As a Waterproof Membrane: For use under all ceramic tile and stone installations where a waterproof surface is required. Ideal for all wet areas such as bathrooms, showers, spas & steam rooms, fountains pools, countertops, etc. Suitable substrates include interior or exterior surfaces of concrete, concrete block and masonry, cement mortar beds, cement backer units, existing surfaces of ceramic tile or terrazzo, and, in interior areas only, gypsum board and exterior grade plywood.

As a Crack Isolation Membrane: For interior use, over shrinkage or non-structural cracks up to 3 mm (1/8"). Ideal for use over concrete or concrete-based underlayments, and to cover plywood and concrete backer unit joints.

COMPOSITION AND MATERIALS

A two component system consisting of an elastomeric latex compound and reinforcing fabric. Designed for optimum adhesion to most tile-setting substrates.

FEATURES

- provides a water tight flooring surface
- bridges shrinkage cracks or other non-structural cracks
- exceptional bond strengths
- easy to apply - just roll or brush on
- fast curing - flooring can be installed in 2 - 3 hours
- cleans up with water while still wet
- low odor & solvent free
- non-flammable
- freeze/ thaw stable
- exceeds ANSI A118.10 and ANSI A118.12 standards.

LIMITATIONS

Not for use as an exposed traffic surface. Do not expose uncovered membrane to traffic, water or direct sunlight until fully cured. Not recommended for use as a roofing membrane over occupied areas, or on unstable surfaces such as chipboard, Masonite, metal, etc. Not recommended under negative hydrostatic conditions. When using as a crack isolation membrane, do not cover existing control or expansion joints. Not for use over structural movement cracks. Use only on surfaces which are maintained above 10°C (45°F) during application and for at least 48 hours after application.

LEED Points Contribution	LEED Points
MR Credit 5, Regional Materials*	Up to 2 points
IEQ Credit 4.2, Low-Emitting Materials – Paints & Coatings	1 point

**May be eligible*

TECHNICAL DATA

Exceeds ANSI A118.10 and ANSI A118.12 standards.

Typical Physical Properties	
Tensile Strength:	7 D dry / 21 D wet: 3.9 MPa (562 psi)
Elongation:	7 D dry / 21 D wet: 657 %
Permeability:	0.013
Water Vapor Transfer:	0.085
Low Temp. Crack Bridging:	no cracks
Hydrostatic Resistance:	passes
Strength - ANSI A118.10	
Shear Strength @ 28 day:	2.4 MPa (355 psi)
@ 100 day water immersion:	1.3 MPa (194 psi)
Seam Strength:	10.2 lb/in width
Breaking Strength:	2.8 MPa (401 psi)
Dimensional Stability:	0.70% length change
Damp-proofness:	passes
Fungus 7 Micro Organism Resistance:	passes
Color:	Blue in liquid form, Black when cured
Cleanability:	With water while still wet
Shelf Life:	1 year in unopened container stored in heated conditions
Approximate coverage (20 L. size):	
Waterproof Membrane:	20.5 m^2 (220 ft^2)
Crack Isolation Membrane: (without final sealer coat)	27.9 m^2 (300 ft^2)

- *Coverages listed are for estimating use only. Actual coverages may vary depending on job site condition.*

PREPARATORY WORK

All surfaces must be clean, even, dry and free of grease, oil, loose paint, curing compounds or sealers, protrubances that may puncture cured membrane, or other foreign matter. Existing concrete surfaces which have been shot blasted, ground or sanded to remove contaminants must be thoroughly cleaned of dust, loose concrete, etc. prior to applying membrane. Surfaces should be maintained at a temperature between 10°C (45°F) and 32°C (90°F) when applying membrane. New concrete surfaces must be fully cured, dry, finished to a wood float or light broom finish, and be true to within 6 mm (1/4") in 3 m (10'). **Apply a latex modified scratch coat consisting of Flextile 57 Scratch Coat Mortar mixed with Flextile 43 or 44 Latex Additive to existing concrete surfaces where abrasion cannot produce a porous enough surface, to uneven surfaces, and to all smooth-troweled concrete surfaces prior to applying WP-980 membrane.**

Interior plywood surfaces should be designed for maximum deflection of 1/360 of span. This normally requires a 16 mm (5/8") layer of exterior-grade plywood over 25 mm (1") boards or 16 mm (5/8") plywood when on joists 40 cm (16") O/C. Plywood sheets should be fastened with screw type nails and glued where possible. Leave a 3 mm (1/8") gap between top sheets of plywood and next to all vertical surfaces to allow for expansion. Gaps in pipe penetrations should be packed with compressible backer rod and flexible sealant. Drains and pipes should be flashed with WP-980 system.

APPLICATION - WATERPROOF MEMBRANE

WP-980 is pre-mixed and ready to use. WP-980 may be applied by brush or roller. Pre-treat all cracks, joints, corners and coves first by applying a generous coat of WP-980 latex compound approximately 10 cm (4") to each side of joint or surface, then embed a 15 cm (6") sheet of reinforcing fabric into the wet latex compound so that the latex bleeds through fabric. Next, apply another coat of latex compound on top of fabric so that fabric is completely covered. Allow drying to the touch.

Apply a generous coat of WP-980 latex compound to entire surface, including pre-treated joints, corners and coves. DO NOT skimp on initial coat of latex compound. Place and embed fabric into the wet latex compound using a roller or brush to smooth out any wrinkles. The latex should bleed through the fabric. Fabric must be lapped at seams by at least 5 cm (2"). Once fabric has been properly laid, apply a second coat of latex compound to completely cover the fabric. Allow to dry to the touch. Next, apply a final coat of WP-980 latex compound to entire surface within 24 hours to seal the installation. Once entire installation turns black and is dry to the touch (approximately 2 - 3 hours), tile may be installed using approved Flextile Latex Portland Cement Mortars. (See curing and tile installation)

APPLICATION - CRACK ISOLATION MEMBRANE

Use WP-980 to treat shrinkage and other minor cracks up to 3 mm (1/8") in concrete accepting ceramic tile or stone installations. All construction, expansion and isolation joints designed into the substrate must be carried through the tile installation and should not be covered by WP-980 when using as a crack isolation membrane. Refer to appropriate detail for installation over these joints in current editions of TTMAC or TCA Ceramic Tile Installation Handbooks.

Measure and pre-cut fabric to cover entire length of crack and at least 1 tile width of each side of crack (20 cm (8") minimum). For cracks greater than 1.5 mm (1/16") and up to 3 mm (1/8"), pre-cut 2 measurements of fabric.

For cracks up to 1.5 mm (1/16"), apply a generous coat of WP-980 latex compound slightly wider than the fabric to be used over crack, with a brush or roller. Embed reinforcing fabric into wet latex compound with a roller or brush so that latex bleeds through fabric. Once fabric is thoroughly embedded, apply a second coat of latex compound and allow to dry. For cracks up to 3 mm (1/8"), embed a second layer of fabric into topcoat of latex compound while still wet, until latex bleeds through fabric. Once second layer of fabric is thoroughly embedded, apply a final coat of latex compound to entirely cover the fabric. Tile installation may commence once WP-980 has dried to the touch and turned black. (approximately 2 - 3 hours).

CURING AND TILE INSTALLATION

Final coat of WP-980 must be dry to the touch and black in color prior to installation of tile flooring. Approximate drying time is 2 - 3 hours at 20°C (70°F) with 50% Relative Humidity. Flood tests are required prior to installing finished flooring surface in critical installations. WP-980 should be cured for at least 7 days at room temperature prior to conducting flood test. Ceramic tile or stone must be installed using one of the following Flextile Latex Portland Cement Mortar systems (ANSI A118.4-1992): Flextile #52 Versatile, #51 or #53 Thin-Set Mortar mixed full strength with #43 Acrylic Mortar Additive or #44 High Solids Acrylic Mortar Additive. Refer to Flextileís product data sheets and current TTMAC or TCA installation handbooks for installation procedures.

SAFETY

Refer to Flextile Material Safety Data Sheet for detailed health and safety information.

AVAILABILITY AND COST

WP-980 is available from Flextile Ltd. and listed distributors in units consisting of 1 - 20 L (5.3 U.S. gallon) pail of latex compound, and 1- 23.2 m^2 (250 ft^2) roll of reinforcing fabric, or 1 - 4 L (1.06 US gallon) pail of latex compound and 1 - 4.7 m^2 (50 ft^2) roll of reinforcing fabric. Cost data is available upon request.

WARRANTY

Flextile warrants that this product is of merchantable quality and is suitable for the purpose for which it is intended. Flextileís liability under this warranty shall be limited to replacement of its product found to be defective or, at its option, a refund of the purchase price. Extended project warranties are available for WP-980. Contact Flextile Ltd or its distributors.

MAINTENANCE

No maintenance is required except where damages result from unforeseen circumstances. Repair procedures shall be directed by Flextile or its distributors.

TECHNICAL SERVICES

Flextile maintains a well-equipped laboratory able to test its products in conjunction with the products with which they are used. Technical assistance for use of Flextile products is available upon request.

RELATED REFERENCES

Current editions of: Ceramic Tile Installation Manual (09300) from the TTMAC & TCA Ceramic Tile Installation Handbook.

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RECOMMENDED USES

- waterproofing ceramic tile or stone installations
- commercial or residential use
- interior or exterior pools, fountains, etc.
- steam showers, tubs, shower pans
- vertical or horizontal applications
- exterior ceramic tile cladding
- over concrete or masonry surfaces
- over concrete backer units
- on exterior decks or balconies Δ
- over plywood or gypsum wallboard ∞
- over existing ceramic tile surfaces
- over in-floor heating systems ∞Σ
- over floor leveling systems Σ
- over shrinkage or other non-structural cracks in concrete substrates ∞
- over CBU or plywood sheet joints ∞

∞ *Interior use only*
Σ *Some gypsum-based leveling systems may not be acceptable. Check with Flextile Ltd.*
Δ *Refer to TTMAC 09300 detail 325F-2002 detail for exterior decks*

NOT RECOMMENDED

- as an exposed traffic surface
- as an exposed membrane surface
- as a primary roofing membrane over occupied areas
- for use under negative hydrostatic conditions
- over existing expansion or control joints
- over structural movement cracks
- over metal, particle board, chip board or other surfaces considered unacceptable for ceramic tile or stone installations

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For job specific installation systems, recommendations, project warranty information, or for assistance with installation specifications, please contact Flextile's technical department.

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